

SEBASTIAN KOSCH

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EDUCATION

9/2009–6/2013 (prospective)	B.A.Sc. in Engineering Science, Infrastructure Major University of Toronto
7/2008–9/2008	Military Training (Deutsche Luftwaffe)
9/1999–6/2008	German Gymnasium/Hochschulreife (Abitur)
9/2005–7/2006	Exchange Student at Yarmouth Memorial High School, Nova Scotia

LANGUAGES AND TECHNICAL SKILLS

Languages	English, German (both fluent); French (high school level)
Programming	Assembler, C, C++, Python/Sagemath, Java, R, VB, Unix Bash, Matlab (basics)
Web	HTML, CSS, JS, Java EE6, PHP, Apache, MySQL
Publishing	LaTeX/XeTeX, Adobe Photoshop & InDesign, Scribus, Office (MS/OO.org)
Other	Git, Subversion (source control), Verilog, AutoCAD, Emacs
Platforms	Unix/Linux (predominantly), Windows, OS X (some)

RELATED COURSE EXPERIENCE

Computer Science/ Statistics/Math	CSC192 – Algorithms and Data Structures <i>Intro to complexity theory; projects in C/C++</i>
	ESC103 – Engineering Computations <i>Numerical Methods; small Matlab projects</i>
	ECE253 – Digital & Computer Systems <i>Processor architecture; FPGA and MIPS development</i>
	MAT185 – Linear Algebra <i>Algebraic structures, elementary theorems</i>
	STA286 – Probability and Statistics <i>Hypothesis testing, parameter estimation, regression</i>
Civil/OR	CIV355 – Urban Operations Research <i>Queuing systems, simulations</i>
	CIV531 – Transport Planning <i>Modelling of urban transport demand and network capacities; small projects</i>
	CIV359 – Intelligent Transportation Systems <i>Project-based course on machine learning and infrastructure applications</i>
	CIV516 – Public Transit Operations & Planning <i>Scheduling, cost minimization, economic analyses</i>

EMPLOYMENT EXPERIENCE

Structural Engineering Intern, *Finck+Billen GmbH & Co. KG* June–July 2012

- Developed general models for accurate modelling of rebar volumes and cost in mid-size structural projects
- Wrote custom FEM and data analysis software to verify models
- Implemented models with a graphical user interface
- Created and edited engineering drawings in AutoCAD

Engineering Science Research Fellowship, *Citizen Lab, University of Toronto* May–Sept 2011

- Developed web-based database analysis tools to help research internet censorship across the world using Java Enterprise Edition
- Developed updates for research software deployed to foreign countries to monitor internet filtering
- Relied heavily on SQL, several scripting languages, and close collaboration with political and social scientists
- Greatly improved efficiency and accuracy of data analysis

Public Relations Assistant, *German Joint Forces' Support Command* Oct 2008–June 2009

- Mandatory military service; served as assistant to the head of the Command's PR office
- Wrote and distributed press releases to improve media relations
- Designed, edited and distributed the Command's monthly internal newsletter (approx. 30 pages). Replaced Microsoft Office with Adobe CS3, overhauled layout and increased the number of readers by over 200%
- Compiled daily press dossiers for Commander and Chief of Staff

LEADERSHIP EXPERIENCE

Project founder and maintainer, *aldusleaf.org* May 2010–present

- Design a open source typeface family ("Crimson Text") for professional and scientific typesetting
- Coordinate a team of three contributors
- Funded by Google
- Used by major organizations such as *Fox News*, *Los Angeles Review of Books* and the Austrian province of Tyrol
- Currently doing research on letterspacing; occasionally consulting typography software engineers on the topic

Marketing Co-Director, *Sustainable Engineering Association* Feb 2012–present

- Develop visual identity, website, marketing materials
- Organize field trips, conferences and seminars for fellow students

Member International Committee, *Rotaract Club University of Toronto* Sept 2011–present

- Previous affiliations with German Rotaract clubs; participated in exchange program with Czech clubs and Rotary's annual international youth leadership conference
- Organize events with local charities and community groups (shoreline cleanup, homeless shelters etc.)
- Currently planning a major fundraising event to support a library for minority groups in Thailand

References available upon request.